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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,026	07/30/2003	Carl K. Esche	EP-7604	7776
34769	7590	02/15/2006	EXAMINER	
DENNIS H. RAINEAR CHIEF PATENT COUNSEL, ETHYL CORPORATION 330 SOUTH FOURTH STREET RICHMOND, VA 23219			MCAVOY, ELLEN M	
		ART UNIT	PAPER NUMBER	1764

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/630,026	ESCHE, CARL K.	
	Examiner Ellen M. McAvoy	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 October 2005.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-46 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-46 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. <u>25 Oct. 2005</u> .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>05 Dec. 2005</u> .	6) <input type="checkbox"/> Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-46 are still rejected under 35 U.S.C. 103(a) as being unpatentable over Norman et al (5,942,470).

Applicant's arguments filed 28 October 2005 have been fully considered but they are not persuasive. As previously set forth, Norman et al ["Norman"] disclose gear oils and gear oil additive concentrates which comprise (i) at least one oil-soluble sulfur-containing extreme pressure or antiwear agent, (ii) at least one oil-soluble amine salt of a partial ester of an acid of phosphorus, and (iii) at least one oil-soluble succinimide ashless dispersant, wherein the proportions of (i):(ii):(iii) on a weight basis is (1-5):(0.1-3):(0.05-4). See column 1, line 40 to column 2, line 10. Component (ii) which includes alkylamine salts of phosphorus acids are represented by formulas (I), (II) and (III) in column 4, top, wherein each of the X groups is, independently, an oxygen atom or a sulfur atom. Thus monothiophosphates are encompassed when one X group is a sulfur atom and the other X groups in the same molecule are oxygen atoms. Several of the specific compounds are set forth in columns 4-10 and include several monothiophosphate compounds such as octylamine salt of O,O-dibutylthiophosphoric acid. The examiner is of the position that component (ii) of Norman meets the limitation in the claims of the alkylamine salt of a dialkylmonothiophosphate component. Norman teaches that nitrogen-

containing ashless dispersants may also be added to the composition. See columns 14-15 wherein component (v) is set forth which includes conventional ashless dispersants including the Mannich-type dispersants. Norman teaches that the additive concentrates contain an oleaginous diluent. See column 18, lines 17-39. Norman allows for the addition of other conventional additives to the gear oils and to the gear oil additive concentrates. Such additives include antioxidants, detergents and pour point depressants. See column 19, lines 29-60. The examiner maintains the position that Norman meets the limitations of the above rejected claims which are drawn to an oil-soluble lubricant additive package comprising (1) at least one alkylamine salt of a dialkylmonothiophosphate and (2) another component such as a detergent, a dispersant, an antioxidant or a pour point depressant. The open-ended claim language "comprising" allows for the addition of other components to the additive packages. The examiner maintains the position that the gears disclosed in Norman are an example of a "machine" lubricated by the gear oil compositions disclosed.

Applicant argues that:

"Norman does not teach or suggest an oil soluble lubricant additive package that yields a lubricating oil having a sulfur content of less than about 0.3 wt.%, as recited in the independent claims."

This is not deemed to be persuasive because although Norman does not specifically limit the amount of sulfur in the final gear lubricant compositions, the amount of sulfur may be within the claimed limit. Norman allows for the addition of 1-5 wt.% of component (i) in the additive concentrate, at least one oil-soluble sulfur-containing extreme pressure or antiwear agent. See column 1, line 46 to column 2, line 10. Norman also teaches that one particularly preferred class

of component (i) is made by reacting an olefin such as isobutene with sulfur. The product, e.g., sulfurized isobutene, typically has a sulfur content of about 10 to about 50%. See column 2, lines 21-28. Thus if 1 wt% of sulfurized isobutene is added as component (i), the amount of sulfur added to the composition ranges between $(1\text{wt.\%}) \times (10\%)$ or 0.1 wt.% and $(1\text{wt.\%}) \times (50\%)$ or 0.5 wt%. Thus, the amount of sulfur from component (i) may be from 0.1-0.5 wt.% which meets the claim limit of less than about 0.3 wt%. The only other sulfur-containing component required to be added to the lubricant compositions of Norman is the alkylamine salt of dialkylmonothiophosphate. Since this component is a *monothiophosphate*, the examiner is of the position that the total amount of sulfur in the final lubricant compositions most likely is within the claimed limitation of less than 0.3 wt%. Additionally, an argument could be made that it would have been obvious to the skilled oil formulator to have omitted the sulfur-containing extreme pressure agent, component (i), from the oil composition of Norman if its function was not desired. See Ex parte Wu , 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989) wherein the Board affirmed the rejection, holding that it would have been obvious to have omitted the polybasic acid salts of the primary reference where the function attributed to such salt is not desired or required, such as in compositions for providing corrosion resistance in environments which do not encounter fresh water. See also In re Larson, 340 F.2d 965, 144 USPQ 347 (CCPA 1965).

Claim Rejections - 35 USC § 103

Claims 25-46 are also still rejected under 35 U.S.C. 103(a) as being unpatentable over Walters et al (5,342,531).

Applicant's arguments filed 28 October 2005 have been fully considered but they are not persuasive. As previously set forth, Walters et al ["Walters"] disclose lubricating oil compositions suitable for use as gear oils which comprise a major proportion of a polyalkylene glycol and a minor proportion dissolved therein of (a) at least one sulfur-containing antiwear or extreme pressure agent, (b) at least one amine salt of at least one partially esterified monothiophosphoric acid, and (c) at least one amine salt of at least one partially esterified phosphoric acid. The examiner maintains the position that component (b), set forth in column 2, line 21 to column 4, line 9, meets the limitation of the at least one alkylamine salt of a dialkylmonothiophosphate component of the claims. Walters also allows for the addition of other components to the lubricant compositions or additive concentrates such as sterically hindered phenolic and amine antioxidants. See column 6, line 31 to column 7, line 45. Additive concentrates and industrial gear applications are set forth in column 9, lines 20-34. The examiner maintains the position that Walters meets the limitations of the above rejected claims which are drawn to an oil-soluble lubricant additive package comprising (1) at least one alkylamine salt of a dialkylmonothiophosphate and (2) another component such as an antioxidant. The open-ended claim language "comprising" allows for the addition of other components to the additive packages. The examiner maintains the position that the gears disclosed in Walters are an example of a "machine" lubricated by the gear oil compositions disclosed.

Applicant argues that:

"Walters teaches a lubricant composition comprising (a) at least one sulfur-containing antiwear or extreme pressure agent. See col. 1, lines 45-50, and line 60 to col. 2, line 19, and the Abstract. In particular, Walters teaches an additive concentrate comprising 'a) 5 to 70 % of at least one sulphur-containing antiwear or extreme pressure agent.' *Id.* at col. 8, line 62 to col. 9. Walters does not teach or suggest an oil soluble lubricant additive package that yields a lubricating oil having a sulfur content of less than about 0.3 wt.% as recited in the independent claims."

This is not deemed to be persuasive because Walters does teach in column 2, lines 13-19, that the sulfur-containing extreme pressure or antiwear agent, component (a), is dissolved in the polyalkylene glycol base lubricating oil in an amount "usually between 0.01 and 2.0% by weight, and preferably from 0.02 to 0.4% by weight, based on the total weight of the solution." Thus, the examiner is of the position that the amount of sulfur present in the compositions disclosed by Walters may be within the claimed limit of less than 0.3 wt.%. Additionally, as set forth above, an argument could be made that it would have been obvious to the skilled oil formulator to have omitted the sulfur-containing extreme pressure agent, component (a), from the oil compositions of Walters if its function was not desired. See Ex parte Wu, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989) wherein the Board affirmed the rejection, holding that it would have been obvious to have omitted the polybasic acid salts of the primary reference where the function attributed to such salt is not desired or required, such as in compositions for providing corrosion resistance in environments which do not encounter fresh water. See also In re Larson, 340 F.2d 965, 144 USPQ 347 (CCPA 1965).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

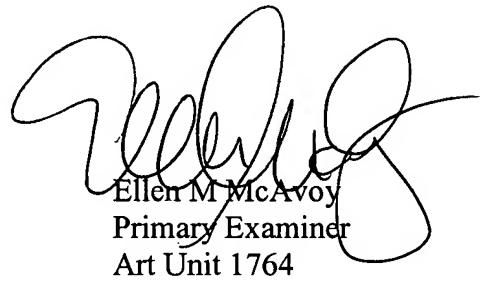
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M. McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Calderola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ellen M. McAvoy
Primary Examiner
Art Unit 1764

EMcAvoy
February 10, 2006